

Space Science Seminar
Tuesday, 2016 November 15
10:30 a.m.
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**Recent Results from the Telescope Array
Experiment**

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Host: Dr. Michelle Hui

The Telescope Array (TA) is the largest ultrahigh energy cosmic rays detector in the northern hemisphere. TA is a hybrid detector comprised of three air fluorescence stations and a large surface array consisting of 507 scintillator counters. Each of the three fluorescence stations, located at the periphery of the ground array, views 108 degrees in azimuth and up to 30 degrees in elevation. The surface detectors are arranged in a square grid of 1.2 km spacing, covering over 700 square kilometers. TA has collected more than seven years of data. In this talk, I will present some of the main results on the cosmic rays composition and energy spectrum obtained by TA and its low energy extension (TALE). Finally, we will present our results from the search for arrival direction anisotropy, including the observed large excess of events at the highest energies, seen in the region of the northern sky centered on Ursa Major. Based on the current results, the “hot spot” in particular, TA is pursuing the expansion of the surface array to four times its current size.

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